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AMENDMENTS TO THE CLAIMS:

Please replace the claims with the claims provided in the listing below wherein status, amendments, additions and cancellations are indicated.

1. (Cancelled)

2. (Currently Amended) The molding method according to claim[[1]] 5, wherein the compression molding of the lens preform ~~glass element~~ is conducted in vacuum.

3. (Withdrawn) Apparatus for molding a microlens array, whereby a microlens array is molded by heating and compressing a glass element, comprising

oppositely placed first and second cores each having a compression molding surfaces between which surfaces a microlens array is moldable by heating and compression;

a depression or projection part formed on the compression molding surface of at least one of the first and second cores for transferring and molding a plurality of convex or concave lens elements;

a middle plate having a hole at its center; and

the hole being adapted to have the glass element set therein, and at least one of the cores having a tip including the compression molding surface of said core, the tip being disposed so as to be able to ascend or descend in the hole;

whereby the apparatus is adapted to compression mold the glass element by means of said compression molding surfaces and the inner peripheral surface of the hole of the middle plate by moving said compression molding surfaces of both cores in a relatively closing direction.

4. (Withdrawn) The molding apparatus according to claim 3, further comprising means for maintaining a vacuum state during the compression molding of the glass element.

5. (New) A method of molding a micro-lens array comprising:

obtaining a lens preform;

obtaining first and second molding cores, each including an end tip, and obtaining an intermediate member;

wherein:

each molding core comprises a compression molding surface disposed on said end tip;

at least one of said molding surfaces comprises depressions or projections for transferring and molding a plurality of convex or concave lens elements into said preform;

said intermediate member comprises a predetermined outer radial dimension and an opening with a predetermined radius;

said end tip of said first molding core having a radially outer dimension that is smaller than the radius of the opening of said intermediate member; and

a platform for positioning said intermediate member is formed on said end tip of said second molding core;

said method further comprising:

positioning said intermediate member on said end tip of said second molding core so that a center axis of said second molding core is collinear with a center axis of said intermediate member;

positioning said lens preform and said end tip of said first molding core within said cylindrical opening of said opening of said intermediate member so that said end tip of said first molding core opposes said end tip of said second molding core and a center axis of said first molding core is collinear with said center axis of said second molding core; and

heating and compressing the lens preform between said molding surfaces of the first and second cores.

6. (New) A method of molding a micro-lens array comprising:

obtaining a lens preform;

obtaining first and second molding cores, each including an end tip, and obtaining an intermediate member;

wherein:

each molding core comprises a compression molding surface disposed on said end tip;

at least one of said molding surfaces comprises depressions or projections for transferring and molding a plurality of convex or concave lens elements into said preform;

said intermediate member comprises a predetermined outer radial dimension and an opening with a predetermined radius;

said end tip of said first molding core having a radially outer dimension that is smaller than the radius of the opening of said intermediate member; and

said end tip of said second molding core having a radially outer dimension that is (1) larger than the radius of the opening of said intermediate member and (2) smaller than the outer radial dimension of said intermediate member so that a platform for positioning said intermediate member is formed on said end tip of said second molding core;

said method further comprising:

positioning said intermediate member on said end tip of said second molding core so that a center axis of said second molding core is collinear with a center axis of said intermediate member;

positioning said lens preform and said end tip of said first molding core within said cylindrical opening of said opening of said intermediate member so that said end tip of said first molding core opposes said end tip of said second molding core and a center axis of said first molding core is collinear with said center axis of said second molding core; and

heating and compressing the lens preform between said molding surfaces of the first and second cores.